

Lake County Division of Transportation
Proposed 2016-2021 Highway Improvement Program

FUNDING AND PROJECTS OVERVIEW and ENDORSEMENT REQUEST

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PUBLIC WORKS AND TRANSPORTATION COMMITTEE

JUNE 8, 2016



Presentation Schedule

PWTC 2016 Meeting Date

Presentation Topic

April 27 • Overview and Program Priorities

June 8 • Funding and Projects / Draft Program Document



Improving transportation a top strategic goal for Lake County and regional partners



Efficient Transportation Contributes To:

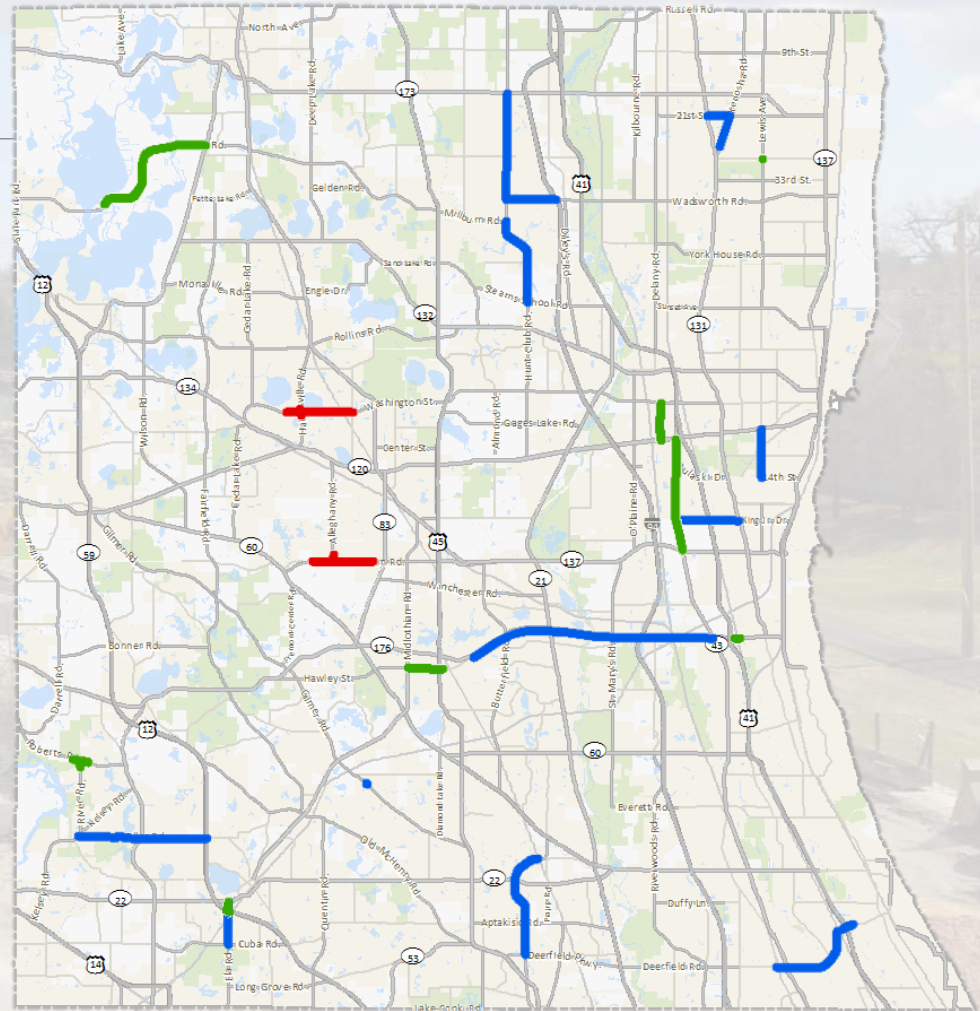
Quality of life
Environmental value
Economic growth



2016 Construction Program

- Preservation
- Modernization
- Expansion

\$111 million



\$38M in new projects for 2016

Reconstruction of Deerfield Rd from Metra RR to US Rte 41

joint project with Village of Deerfield and City of Highland Park

9 Resurfacings:

- Hunt Club Rd, Stearns School Rd to IL Rte 173
- 21st St, IL Rte 131 to Kenosha Rd
- Miller Rd, Kelsey to US Rte 12
- Ela Rd, Cuba Rd to IL Rte 22
- MLKing Jr Dr, IL Rte 43 to IL Rte 131
- North Shore Bike Path, IL Rte 43 to Brice Av
- Wadsworth Rd, Hunt Club Rd to I-94 bridge
- Kenosha Rd, 21st St to IL Rte 131
- Lewis Ave, 14th St to IL Rte 120

2 Signal Interconnects: IL Rte 43 and Greenleaf

Realign North Shore Bike Path
at UP Railroad crossing east of US Rte 41

Lewis Avenue at 29th St intersection improvement



Funding and Revenue

4 LCDOT Capital Program Revenue Streams:

- County Bridge Fund (CB)
- Matching Tax (MT)
- Motor Fuel Tax (MFT)
- Sales Tax (ST)

All **zero** growth except
ST, growth average 3%



Additional Funds for Effective Programming

- Illinois Commerce Commission (ICC) Railroad Grade Crossing Protection
- Congestion Mitigation and Air Quality (CMAQ)
- Surface Transportation Program (STC, STE, STU)
- Transportation Alternatives Program (TAP)
- Job Access/Reverse Commute (JARC) - running out mid-2016
- 5310 Funds (for current RideLakeCounty|Central project)
- Highway Bridge Program (HBP)
- *more*



Fixing America's Surface Transportation: *FAST* Act

Reauthorized the federal aid highway and transit programs

A **six year authorization** enacted on December 4, 2015

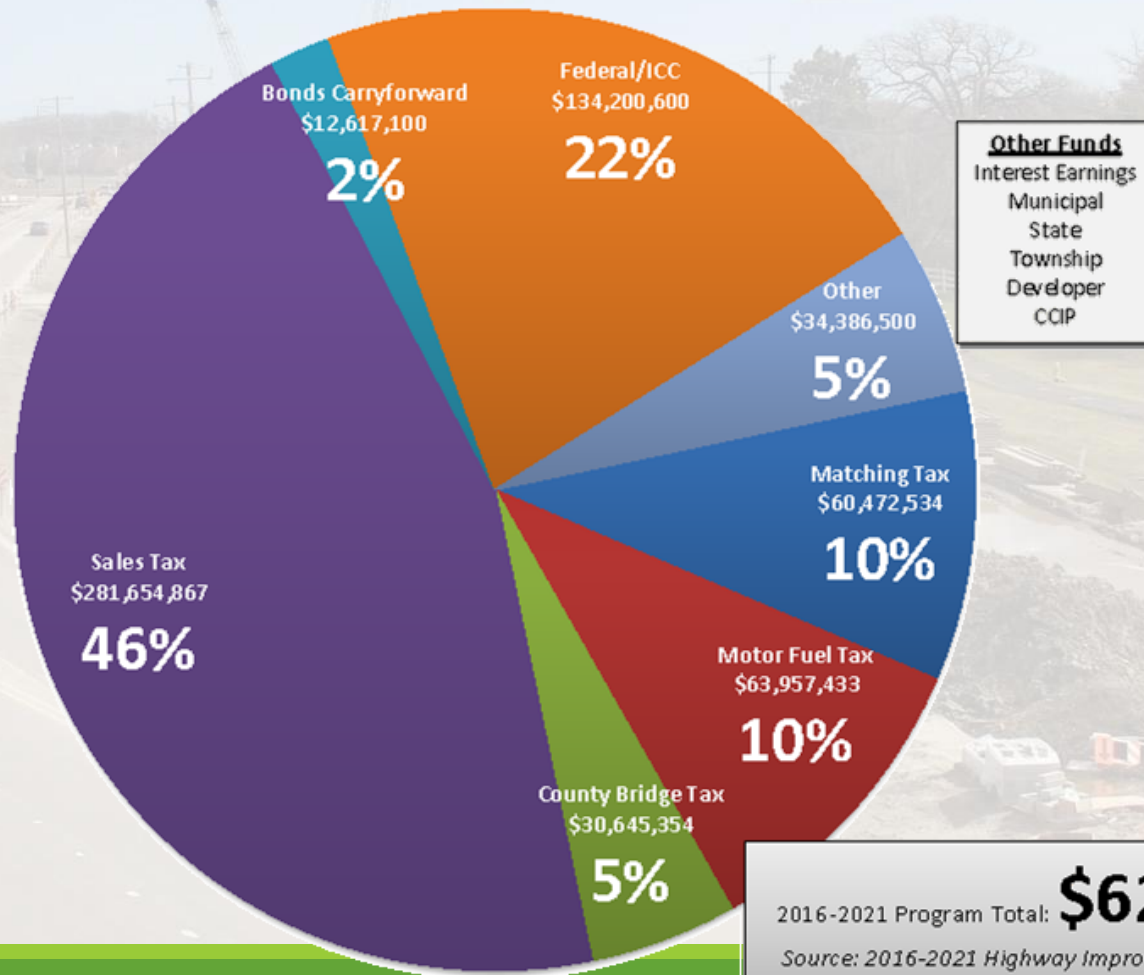
Successor to MAP-21

Continues fund sources available for county use:

- Surface Transportation Program (STP) which now also encompasses Bridge and Transportation Enhancements
- Congestion Mitigation and Air Quality Program (CMAQ)



Fund Sources | 2016-2021 program

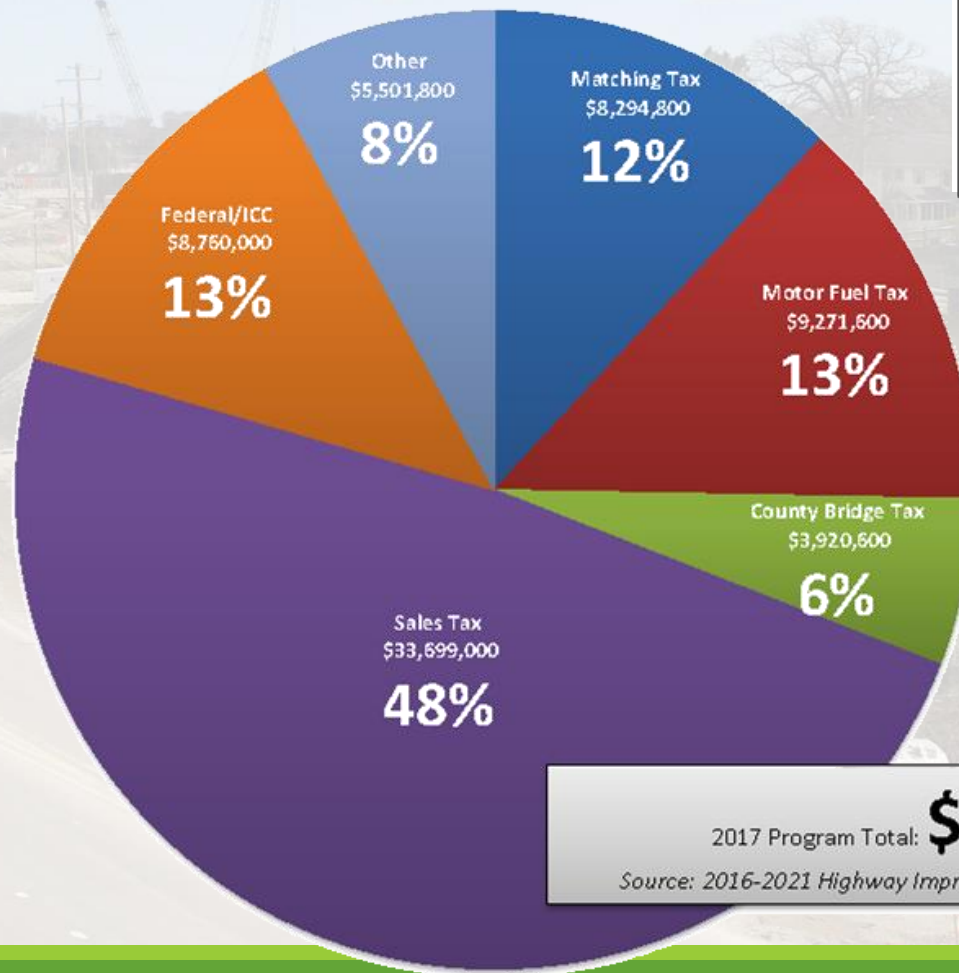


2016-2021 Program Total: **\$620 million**

Source: 2016-2021 Highway Improvement Program, CPMS v.5a



Fund Sources | 2017 program



Other Funds

Interest Earnings
Municipal
State
Township
Developer
CCIP

2017 Program Total:

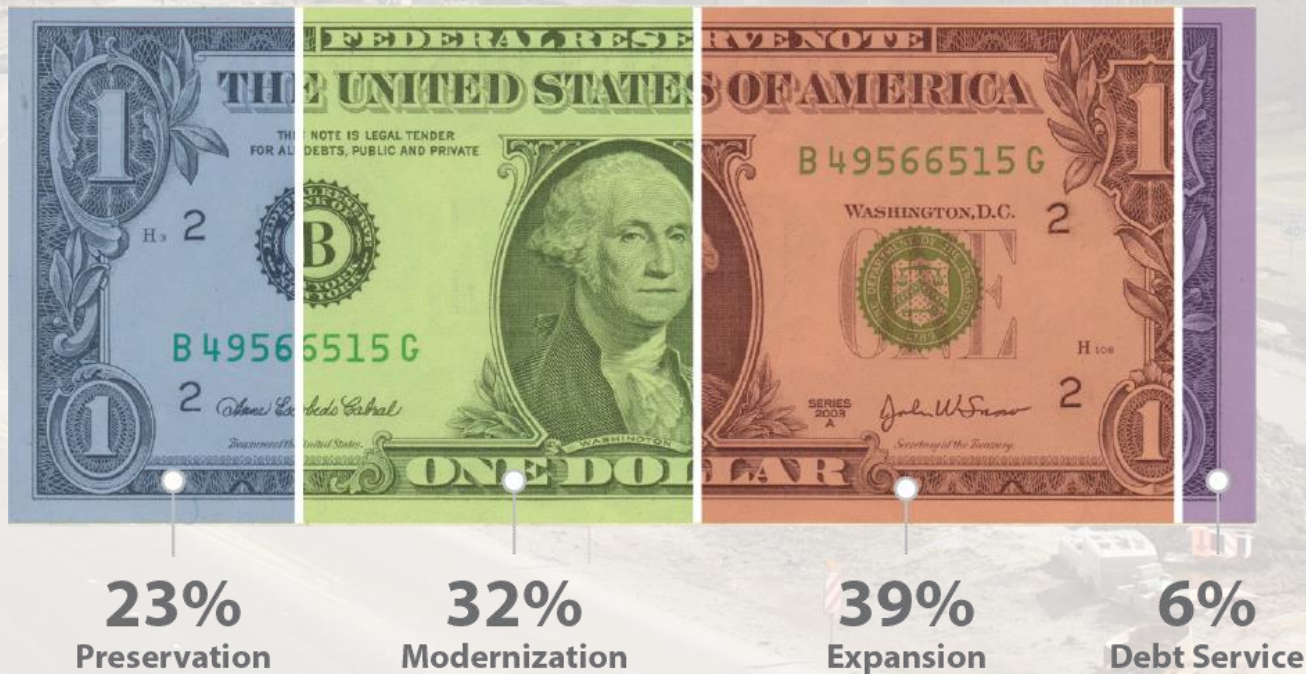
\$69 million

Source: 2016-2021 Highway Improvement Program, CPMS v.5a



Balancing Program Needs

Funds Distribution | 2016-2021 by program category



2016-2021 Program

2016-2021 project maps and lists

Detail of Preservation, Modernization and Expansion categories

Becomes our capital budget submittal for CFY 2017



Priority One: Preservation

**Preservation projects:
approximately**

23%

of program

**Typically resurfacing, reconstruction,
patching and drainage improvements,
maintenance activities**

Tools in the Toolbox:

- ARGUS pavement management software
- Asset inventories
- Unit cost information
- Industry standards



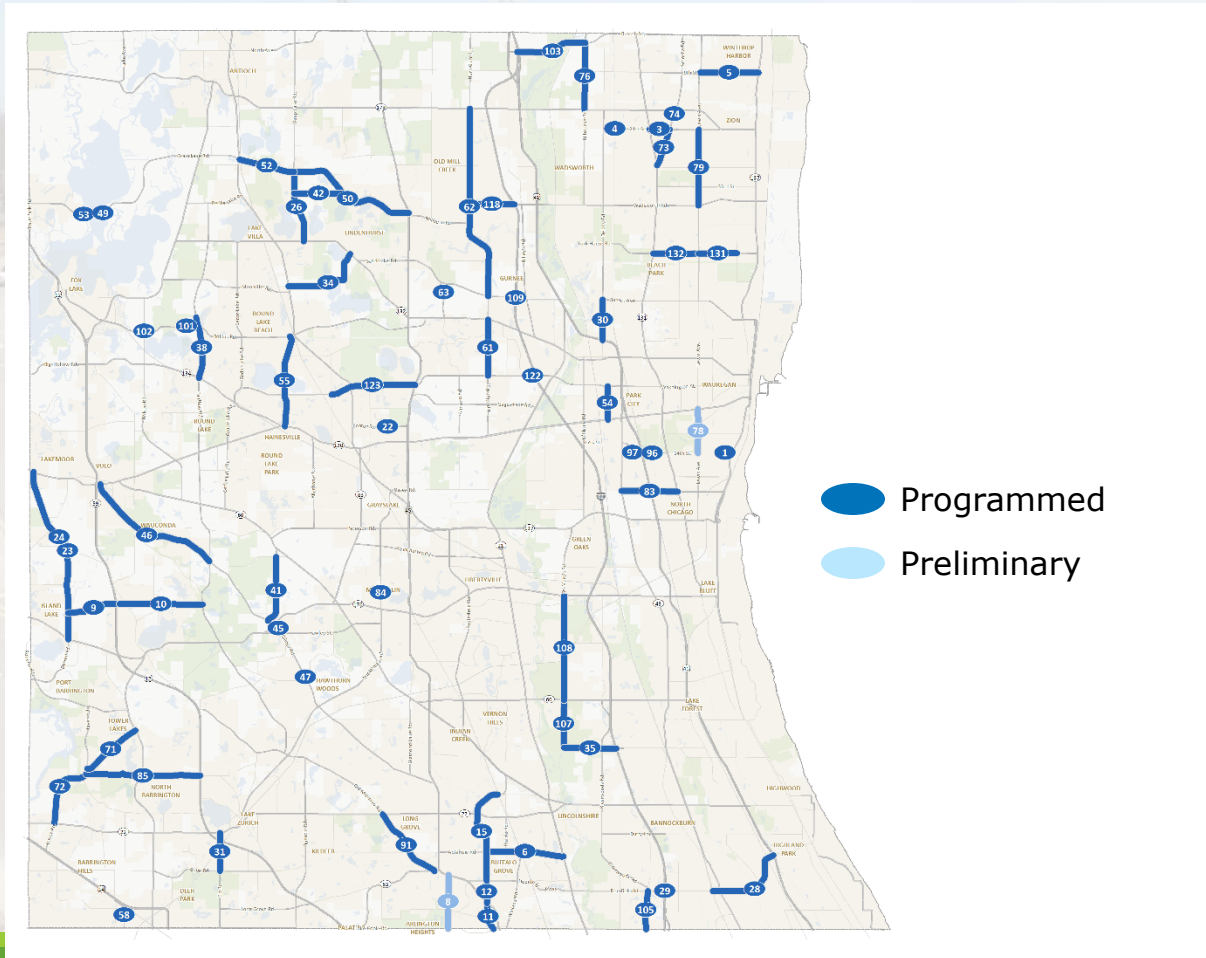
What's **new** in this 5-year program?

Preservation Projects:

- Pavements—Resurfacing or Reconstruction
 - \$26 million
 - 25 miles
 - 15 locations
- Upgrade PASSAGE equipment
- Bridge inspection
- Culvert replacements
- Storm sewer/drainage work
- Annual maintenance items—patching, crack sealing, trees/landscaping, guardrail, retaining walls, etc.
- Bike path paving



Preservation | 2016 – 2021 Program



Preservation Projects

Map ID	Route	Work Type	Program Year	CPMS PIN
1	14th St.	Mill and resurface roadway	2018	B-01002b
3	21st St.	Resurfacing and widening	2016	B-00353b
4	21st St.	Rehabilitate culvert	2021	B-01376
5	9th St.	Resurfacing	2017	B-01234
6	Aptakisic Rd.	Resurfacing	2017	B-01045
8	Arlington Hts. Rd.	Reconstruct existing roadway	Post 2021	B-01182
9	Bonner Rd.	Resurfacing	2019	B-01309
10	Bonner Rd.	Resurfacing	2021	B-01382
11	Buffalo Grove Rd.	Resurfacing	2017	B-01302
12	Buffalo Grove Rd.	Reconstruction	2021	B-01359
15	Buffalo Grove Rd.	HMA patching	2016	B-01325
22	Center St.	Culvert replacement	2017	B-01373
23	Darrell Rd.	Resurfacing	2019	B-01305
24	Darrell Rd.	Culvert replacement	2021	B-01378
26	Deep Lake Rd.	Resurfacing	2021	B-00913
28	Deerfield Rd.	Reconstruction	2016	B-01003
29	Deerfield Rd.	Retaining wall maintenance	2016	0B-01366
30	Delany Rd.	Resurfacing	2021	B-01353
31	Ela Rd.	Resurfacing	2016	B-01297a
34	Engle Dr.	Resurfacing	2021	B-01354
35	Everett Rd.	Resurfacing	2018	B-01237a
38	Fairfield Rd.	Resurfacing	2018	B-01238
41	Fremont Center Rd.	Resurfacing	2017	B-01235a
42	Gelden Rd.	Resurfacing	2018	B-01170
45	Gilmer Rd.	Resurfacing	2017	B-01235b
46	Gilmer Rd.	Resurfacing	2021	B-01349
47	Gilmer Rd.	Retaining wall maintenance	2017	B-00980
49	Grass Lake Rd.	Bridge deck profiling	2017	B-01048b
50	Grass Lake Rd.	Resurfacing	2019	B-01239
51	Grass Lake Rd.	Resurfacing	2017	B-01408a
52	Grass Lake Rd.	New access & turn lanes	2017	B-01408b
53	Grass Lake Rd.	Retaining wall maintenance	2018	B-01312
54	Greenleaf St.	Resurfacing	2017	B-01171a



Preservation Projects cont'd

55	Hainesville Rd.	Resurfacing	2018	B-01344
58	Hart Rd.	Culvert replacement	2020	B-01372b
61	Hunt Club Rd.	Resurfacing	2020	B-01049
62	Hunt Club Rd.	Resurfacing	2016	B-01299b
63	Hutchins Rd.	Culvert replacement	2019	B-01372a
71	Kelsey Rd.	Resurfacing	2020	B-01306
72	Kelsey Rd.	Resurfacing	2018	B-01383
73	Kenosha Rd.	Resurfacing	2016	B-00353a
74	Kenosha Rd.	Culvert rehabilitation	2020	B-01377
76	Kilbourne Rd.	Resurfacing	2020	B-01163
77	Lewis Ave.	Resurfacing	2016	B-01142a
78	Lewis Ave.	Reconstruction	Post 2021	B-01142b
79	Lewis Ave.	Resurfacing	2016	B-01308
83	M.L.King Jr. Dr.	Resurfacing	2016	B-01167
84	Midlothian Rd.	Culvert replacement	2018	B-01380
85	Miller Rd.	Resurfacing	2016	B-01165
91	Old McHenry Rd.	Resurfacing	2020	B-01351
96	Pulaski Dr.	Culvert replacement	2016	B-01262
97	Pulaski Dr.	Replace east bridge expansion joint	2016	B-01360
101	Rollins Rd.	Drainage improvements	2016	B-00982
102	Rollins Rd.	Restore eroded outlet	2016	B-01323
103	Russell Rd.	Resurfacing	2017	B-1324
105	Saunders Rd.	Resurfacing	2018	B-01307
107	St. Mary's Rd.	Resurfacing	2018	B-01237b
108	St. Mary's Rd.	Resurfacing	2020	B-01381
109	Stearns School Rd.	Bridge deck replacement	2019	B-01102
118	Wadsworth Rd.	Resurfacing	2016	B-01299a
122	Washington St.	Restore drainage channel	2017	B-01264
123	Washington St.	Resurfacing	2019	B-01350
131	York House Rd.	Drainage improvements	2017	B-01106
132	York House Rd.	Resurfacing	2018	B-01257



Sustainability - Preservation

Culvert Lining:

- New preservation technique
- Lining existing pipe allows us to reuse instead of replace
- Without replacing the pipe, there is no need to replace the road above the pipe
- Little to no disruption to motorists (lessen amount of idling and detour/pollution)



Detention Basin Retrofits:

- Improve existing detention basins to enhance water quality and function
- Convert turf grass to native vegetation
- Improve drainage infrastructure to facilitate water quality treatment
- LCDOT has retrofit a total of 17 detention basins to date



Priority Two: Modernization

**Modernization projects:
approximately**

32%

of program

**Typically intersection and safety
improvements, bike and pedestrian
accommodations**

Tools in the Toolbox:

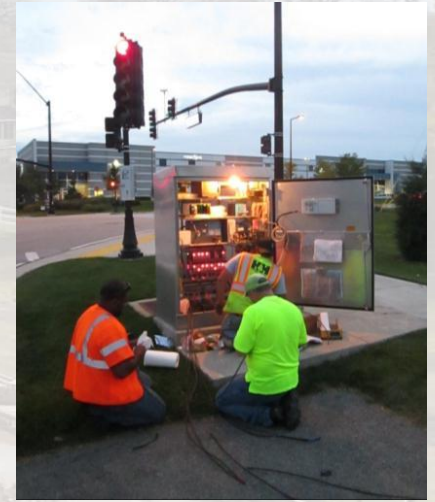
- Traffic analysis
- Level of Service data
- Non-motorized policy
- 2040 bike and pedestrian priorities



What's **new** in this 5-year program?

Modernization Projects:

- Intersection/Signal improvements
 - Sunset/Golf/Greenwood
 - US41 at Stearns School Rd
 - Winchester Rd at IL83
- Traffic software systems maintenance and upgrades
- Signal equipment and coordination
- Add Emergency Vehicle Preemption
 - 15 locations (6 new, 9 obsolete)
- Street lighting upgrades
- Basin management



Modernization saves time, fuel, money and the environment

Corridors Studied: **3**

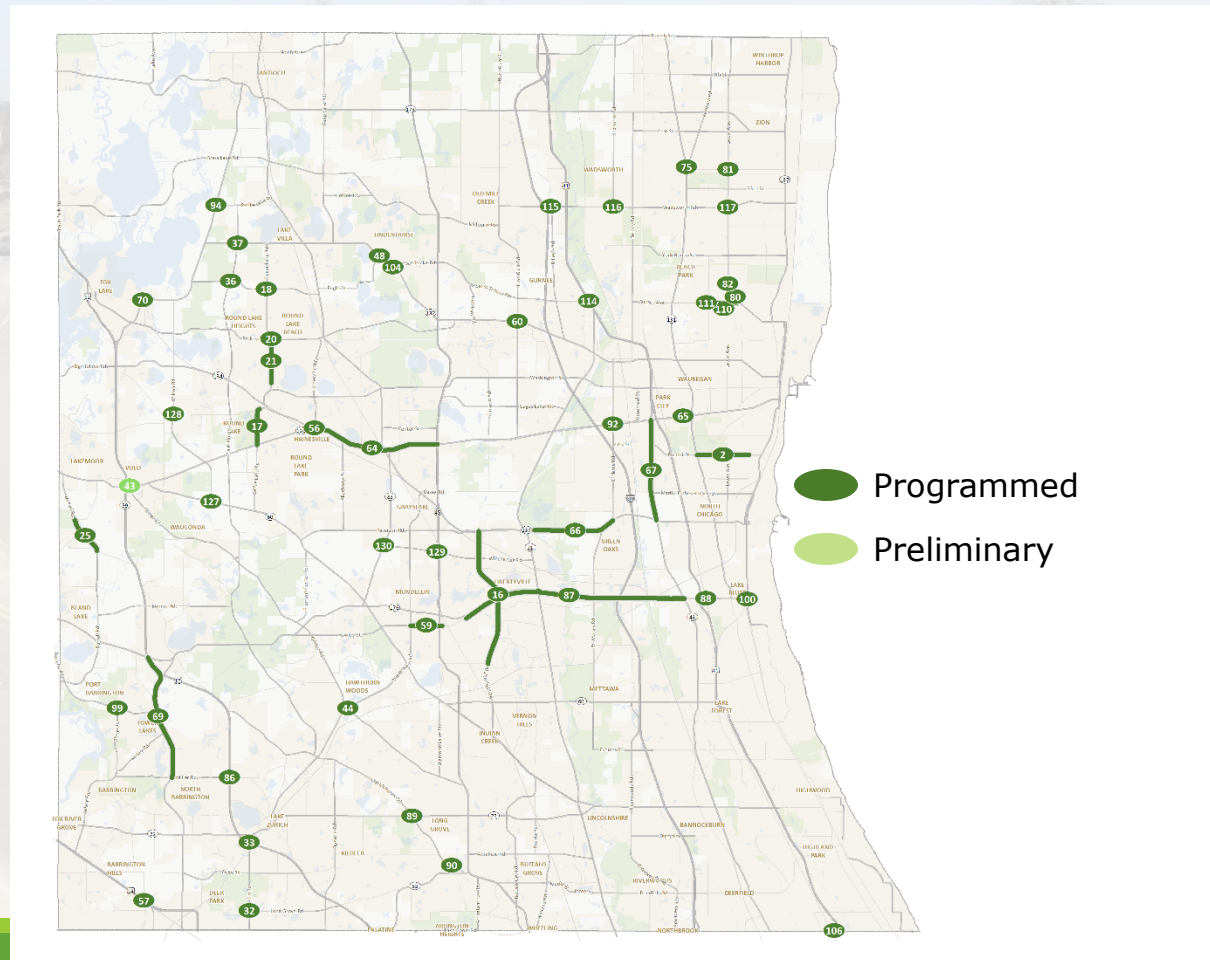
Delays Reduced: **694 hours per day**

Fuel Saved: **91 gallons per day**

Annual Benefit: **\$4,382,629**

CO₂ Emissions Avoided: **276 metric tons per year**

Modernization | 2017-2021 Program



Modernization Projects

Map ID	Route	Work Type	Program Year	CPMS PIN
2	14th St.	Reconstruction	2018	B-01002a
16	Butterfield Rd.	Adaptive Traffic Signal Control	2018	B-01319
17	Cedar Lake Rd	Reconstruction	2017	B-00177
18	Cedar Lake Rd	Revise Street Lighting Design	2019	B-00250c
20	Cedar Lake Rd	Preliminary Traffic Crash Study	2016	B-00895a
21	Cedar Lake Rd	ITS PASSAGE - Cedar Lake Rd	2016	B-01030
25	Darrell Rd.	Realignment	2019	B-00141
32	Ela Rd.	Intersection Improvement	2019	B-01120
33	Ela Rd.	Intersection Improvement	2016	B-00277
36	Fairfield Rd.	Intersection Improvement	2020	B-01184
37	Fairfield Rd.	Intersection Improvement	2016	D-00574
43	Gilmer Rd.	Realignment	Post 2021	B-00845
44	Gilmer Rd.	Intersection Improvement	2019	B-00728a
48	Granada Blvd.	Intersection Improvement	2016	B-00993a
56	Hainesville Rd.	Intersection Improvement	2016	B-01029b
57	Hart Rd.	Intersection Improvement	2017	B-00736
59	Hawley St.	Reconstruction	2016	D-00597
60	Hunt Club Rd.	Intersection Improvement	2020	B-01115
64	IL Rte. 120	ITS PASSAGE - IL Rte. 120	2016	B-01029a
65	IL Rte. 120	Road widening	2019	B-00740
66	IL Rte. 137	Bikepath	2021	B-01181a
67	IL Rte. 43	ITS PASSAGE - IL Rte. 43	2016	B-01031
68	IL Rte. 59	ITS PASSAGE - U.S. Hwy. 12	2019	B-01032
69	IL Rte. 59	Signals	2019	B-01320
70	IL Rte. 59	Intersection Improvement	2019	B-00738
75	Kenosha Rd.	Intersection Improvement	2017	B-00424
80	Lewis Ave.	Preliminary Traffic Crash Study	2016	B-00895b
81	Lewis Ave.	Intersection Improvement	2016	B-01116
82	Lewis Ave.	Bridge Removal	2016	B-01230c
86	Miller Rd.	Intersection Improvement	2019	B-01263
87	North Shore Bike Path	Bike Path Paving	2016	B-01103
88	North Shore Bike Path	Intersection Improvement	2016	D-00269
89	Old McHenry Rd.	Road widening	2019	D-00351



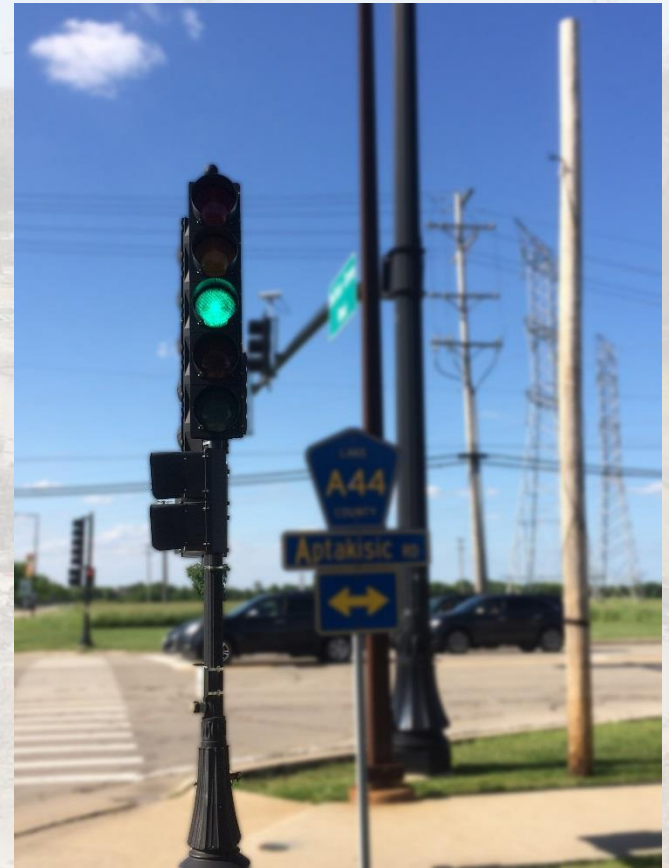
Modernization Projects cont'd

90	Old McHenry Rd.	Roadway reconstruction	2017	B-01020a
92	O'Plaine Rd.	Modernize traffic signals	2017	B-01193
94	Petite Lake Rd.	IDOT channelization project	2017	B-00818
99	River Rd.(Cuba Twnsp.)	Roundabout	2016	E-00564c
100	Robert McClory Bike Path	Reconstruct bike path bridge	2016	B-01192
104	Sand Lake Rd.	Road widening	2016	B-00993b
106	Skokie Valley Bikepath	Bikepath	2018	B-01150
110	Sunset Ave.	ITS PASSAGE Sunset Ave	2019	B-01033
111	Sunset Ave.	Signals	2019	B-01318
113	U.S. Hwy. 12(East of 59)	Intersection Improvement	2016	B-00277
114	U.S. Hwy. 41	Add right turn lane	2021	B-01361
115	Wadsworth Rd.	Intersection improvement	2018	B-00737b
116	Wadsworth Rd.	Intersection improvement	2019	B-00737c
117	Wadsworth Rd.	Intersection improvement	2020	B-01119
127	Wilson Rd.	Intersection Improvement	2017	B-00842
128	Wilson Rd.	Intersection Improvement	2016	D-00594
129	Winchester Rd.	Railroad	2017	B-01183
130	Winchester Rd.	Intersection Improvement	2021	B-01365



Sustainability - Modernization

- Retrofit of LED lamps in existing traffic signals throughout the county is complete
- Reduces power consumption and utilizes long-life lamps for low ongoing maintenance costs
- Evaluating LED technologies for our street lights to realize similar benefits



Priority Three: Expansion

**Expansion projects:
approximately**

39%

of program

**Typically add lanes, grade
separations, new or extended roads**

Tools in the Toolbox:

- 2040 plan
- State Consensus list
- Demographic trends
- Traffic data



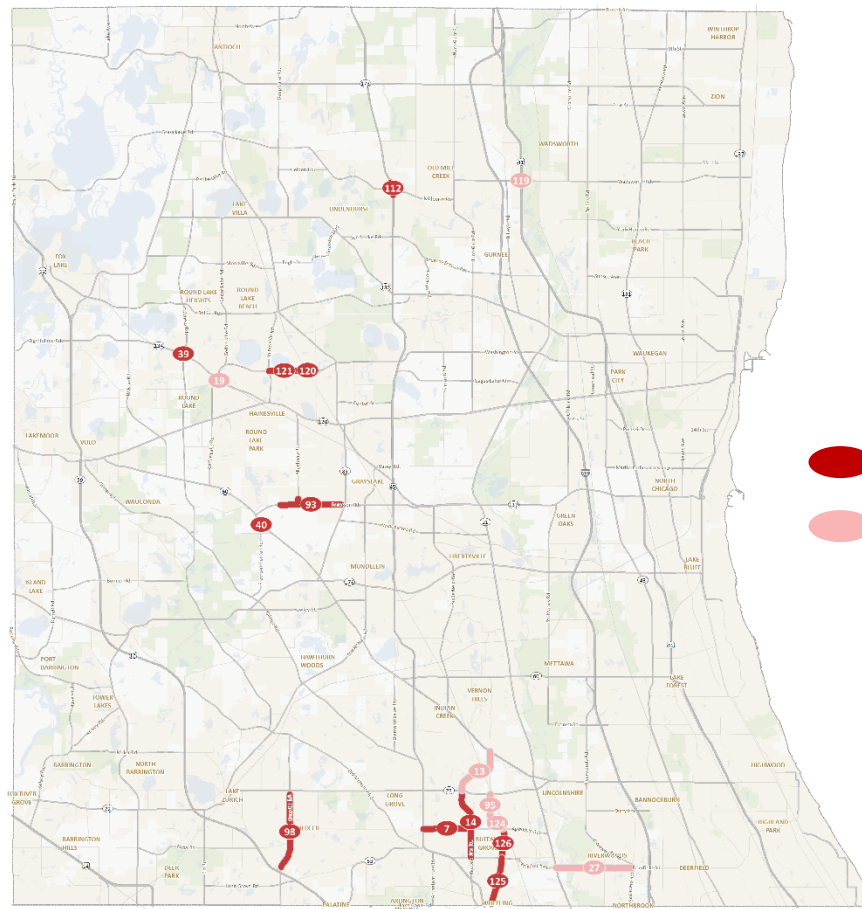
What's **new** in this 5-year program?

Expansion Projects:

- Paratransit Market Study
- Reconstruction Buffalo Grove Rd



Expansion | 2016-2021 Program



● Programmed
● Preliminary



Expansion Projects

Map ID	Route	Work Type	Program Year	CPMS PIN
7	Aptakisic Rd.	Widening	2021	B-00739a
13	Buffalo Grove Rd.	Reconstruction and Widening	Post 2021	B-01358
14	Buffalo Grove Rd.	Reconstruction and Widening	2020	E-00559
19	Cedar Lake Rd	Realignment	Post 2021	B-00752
27	Deerfield Rd.	Reconstruction and Widening	Post 2021	B-01266a
39	Fairfield Rd.	Intersection Improvement	2019	B-00730
40	Fremont Center Rd.	Intersection Improvement	2018	B-00474a
93	Peterson Rd.	Reconstruction and Widening	2016	B-00734c
95	Prairie Rd.	Widening	Post 2021	E-00259d
98	Quentin Rd.	Widening	2018	B-00378
112	U.S. Hwy 45	Bypass	2017	B-00727a
119	Wadsworth Rd.	Intersection Improvement	Post 2021	B-00737a
120	Washington St.	Grade Separation and Widening	2016	B-00944a
121	Washington St.	Widening	2016	B-00945
124	Weiland Rd Ext.	Realignment	Post 2021	E-00259a
125	Weiland Rd.	Widening	2018	E-00259b
126	Weiland Rd.	Widening	2019	E-00259c



Sustainability - Expansion

Recycling Pavement/Asphalt:

Existing pavement is ground off and can be recycled

New pavement can contain up to 40% recycled material (varies)

Recycled asphalt and crushed concrete can be used as part of a new road's base layer or for temporary driveways

New Peterson Road bike path pavement contains recycled asphalt and 3% recycled asphalt shingles

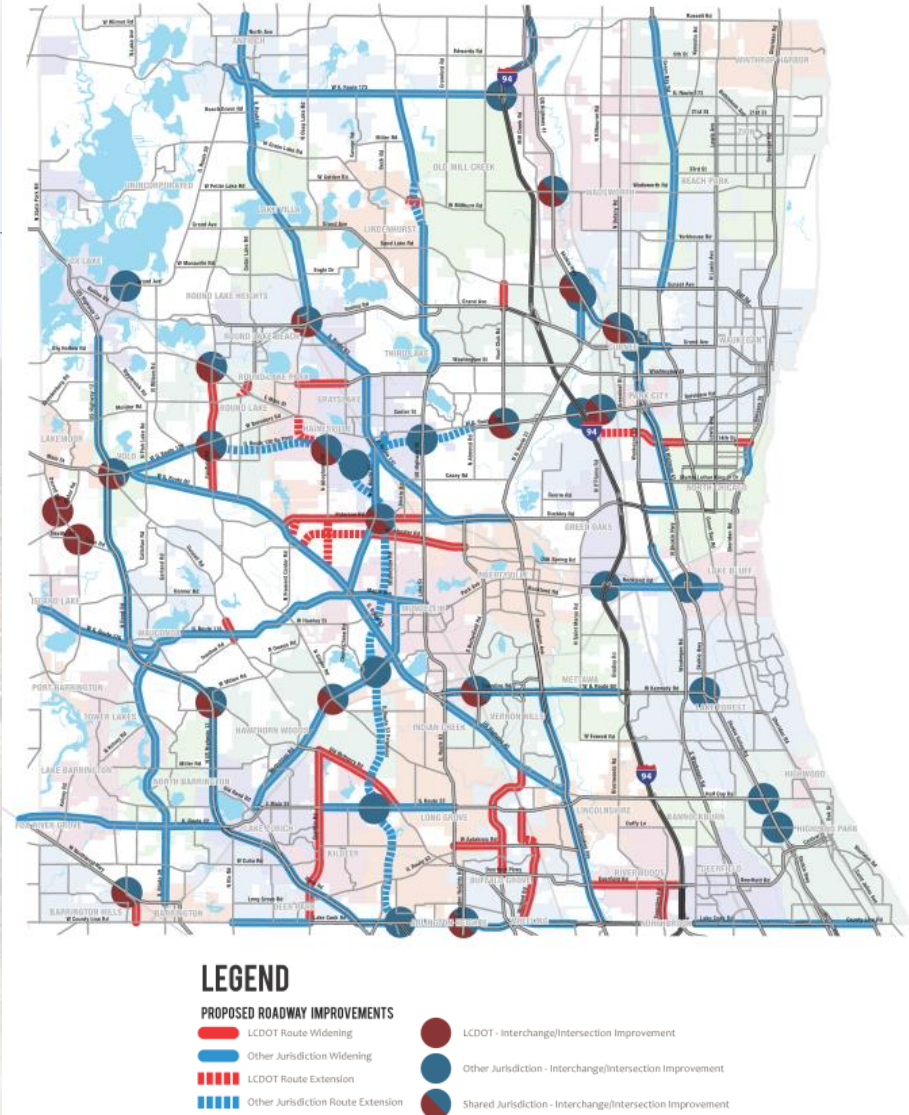


2040 Roadway Priorities

Peak period trips estimated to increase by **36%** between 2010 and 2040

212 miles of roadway Improvements recommended

- **7** interchange
- **9** intersection
- **65** corridor

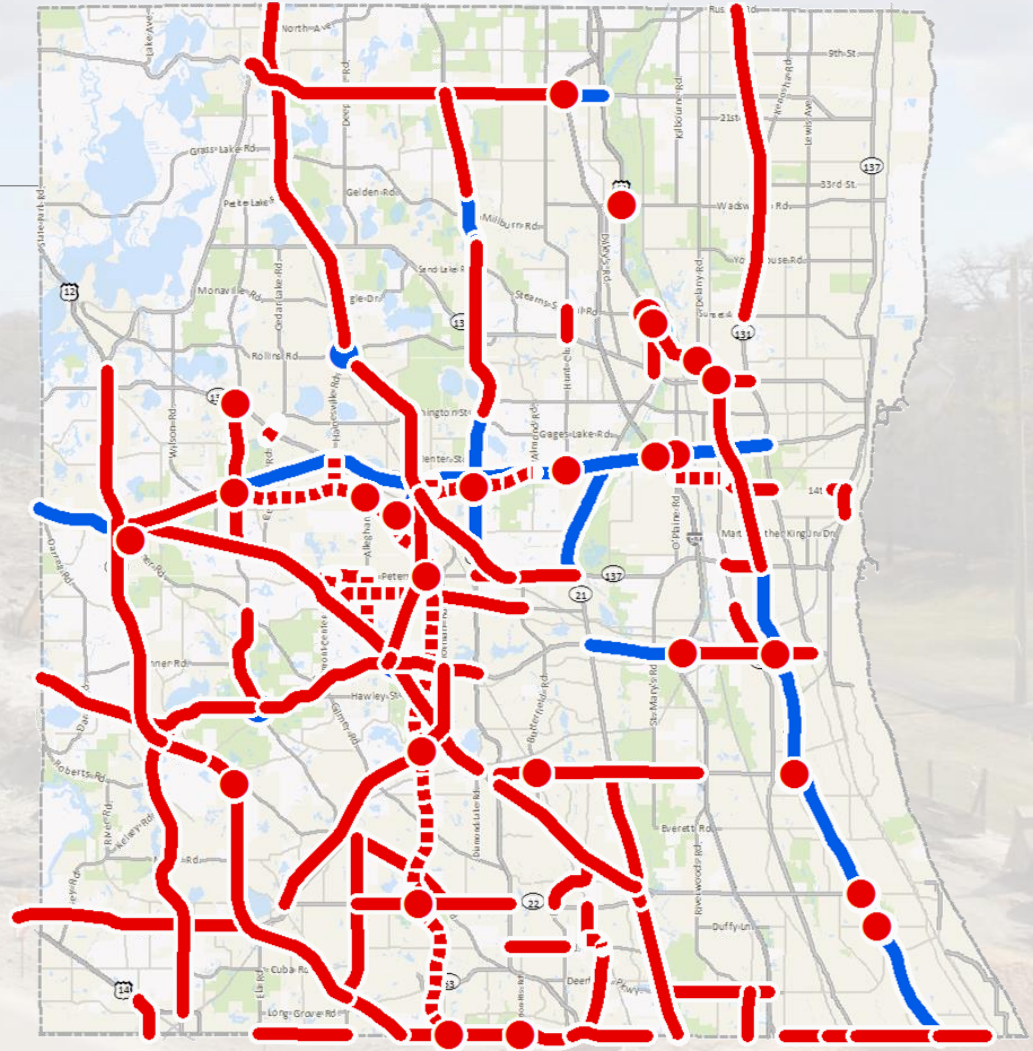


* Potential railroad grade separations are noted in the Appendix.



2040 Roadway Improvements

- Consensus projects
- 2040 projects
- Both LCDOT and IDOT projects
- LCDOT has projects in preliminary phases now that can't be programmed for construction due to lack of funding
- \$2.1 billion in improvements identified in the 2040 Roadway Improvement Plan



Questions?

